

REMARKS

Pending Claims

Claims 1–29 are pending in this application.

Restriction Required Election

A response to the Restriction Requirement is required even when the Restriction is traversed. Accordingly, Applicants respond by electing Group I, drawn to an Nfr polypeptides, and further selects the species NFR5 (SEQ ID NO: 8) for first examination on the merits. On indication of allowable subject matter, rejoinder of the remaining species of polypeptides, as well as rejoinder of the withdrawn nucleic acid claims, method of making, and method of using claims containing the same scope as the polypeptide claims is requested.

This election is made with traverse, as the Examiner applied a U.S. Restriction standard rather than the Unity of Invention standard required by PCT Rule 13.1 and 13.2.

Unity of Invention Standard is Required

During examination of a national stage application filed under 35 U.S.C. § 371, PCT Rules 13.1 and 13.2 must be followed when considering unity of invention of claims of different categories, without regard to the practice in national applications filed under 35 U.S.C. § 111. See MPEP § 1850 citing *Caterpillar Tractor Co. v. Commissioner of Patents and Trademarks*, 650 F. Supp. 218 (E.D. Va. 1986).

Applicants submit Groups I-V are linked by the same or corresponding special technical feature that forms a single inventive concept. A "special technical feature" is defined in PCT Rule 13.2 as meaning those technical features that define a contribution which each of the inventions, *considered as a whole*, makes over the prior art.

One special technical feature that unifies the subject matter of the claims is the newly identified Nod-factor binding elements, including three novel species Nfr1, Nfr5, and Sym10. The present invention provides the identification, annotation, and functional characterization of

this new group of molecules. Claim 1 is directed to a polypeptide having at least 60% identity to SEQ ID NO: 8 (Nfr5), Nfr1 (SEQ ID NO:24), or SYM10 (SEQ ID NO: 15).

As discussed in the specification, the novel Nod-factor binding elements, Nfr5 (SEQ ID NO: 8), Nfr1 (SEQ ID NO:24), and SYM10 (SEQ ID NO: 15) and their coding sequences found in the respective genes (SEQ ID NOs: 7, 21, and 11) share at least 60 % sequence identity (See, for example, Tables 2 and 4 in the specification). This is in contrast to sequences encoding Nfr polypeptides of Rice and Arabidopsis, for example, Lotus Nfr5 (SEQ ID NO: 8 showing less than 60% sequence identity to these species (See, for example, page 34).

Applicants therefore submit the claimed Nod-factor polypeptide and fragments having at least 60% sequence identity is one special technical feature of the claims that links Groups I-V (claims 1-29) so as to form a single inventive concept. Each of the claims requires all the elements of claim 1, and each is linked as product having these technical features and process applying these technical features of the product. The Office Action has not provided any evidence that supports lack of unity of invention or demonstrates that the claims are not linked by a special technical feature.

At page 3 of the Restriction Requirement the Examiner asserts that Nod Factor proteins are known, pointing to page 5 of the specification. Applicants note that the discussion at pages 4-5 of the specification notes that while Nod Factors are known, the search for a Nod Factor Binding Element responsible for strain specific Nod Factor perception (and resulting nodulation effects) is not as yet identified. (Specification page 5, lines 11-15)

As discussed above, Groups I-II recite compositions (polypeptides and polynucleotides) and Groups III-V recite methods and products utilizing the polypeptide and gene compositions. These groups are related as product and process of use. Each of the claims incorporates all the limitations of claim 1 (the generic product claim), and each shares at least one common technical feature, at least 60% sequence identity to polypeptide Nfr5 (SEQ ID NO:8) and fragments, and each maintains the functional characteristics, e.g., nodulation activity.

At least an incorrect standard was applied in issuing the Restriction Requirement, and because the PCT Rule 13.1 and 13.2 Unity of Invention must be applied, withdrawal of this Restriction Requirement and consideration of all the claims under the required Unity of Invention standard is requested.

CONCLUSION

In view of the above amendments and remarks, Applicant respectfully requests examination of all of the claims on the merits. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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